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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,371	12/28/2004	Hiroshi Mashima	263787US2PCT	6811
22850 7590 02/11/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER	
			STOUFFER, KELLY M	
ALEAANDRIA, VA 22314			ART UNIT	PAPER NUMBER
			1792	
			NOTIFICATION DATE	DELIVERY MODE
			02/11/2009	ELECTRONIC

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

		Application No.	Applicant(s)			
Office Action Summary		10/518,371	MASHIMA ET AL.			
		Examiner	Art Unit			
		KELLY STOUFFER	1792			
Period fo	The MAILING DATE of this communication ap or Reply	pears on the cover sheet with the	correspondence address			
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLEMEVER IS LONGER, FROM THE MAILING Desions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. Poperiod for reply is specified above, the maximum statutory period re to reply within the set or extended period for reply will, by statutively received by the Office later than three months after the mailing patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be twill apply and will expire SIX (6) MONTHS from the cause the application to become ABANDON	N. imely filed in the mailing date of this communication. ED (35 U.S.C. § 133).			
Status						
1) 又	Responsive to communication(s) filed on <u>02 L</u>	December 2008				
•		s action is non-final.				
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
٥/ك	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
	·	Ex parto Quayro, 1000 C.B. 11,	0.0.210.			
Dispositi	on of Claims					
4)🛛	☑ Claim(s) <u>1 and 3-8</u> is/are pending in the application.					
	4a) Of the above claim(s) <u>7 and 8</u> is/are withdrawn from consideration.					
5)	D Claim(s) is/are allowed.					
6)🖂	6)⊠ Claim(s) <u>1 and 3-6</u> is/are rejected.					
7)	Claim(s) is/are objected to.					
8)□	Claim(s) are subject to restriction and/o	or election requirement.				
Applicati	on Papers					
9)☐ The specification is objected to by the Examiner.						
•	10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.					
.0,	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
The path of declaration is objected to by the Examiner. Note the attached office Action of form 1.10-102.						
Priority ι	ınder 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
2) 🔲 Notic 3) 🔯 Infori	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date <u>9/8/08</u> .	4) Interview Summar Paper No(s)/Mail I Notice of Informal 6) Other:	Date			

### **DETAILED ACTION**

## Response to Arguments

Applicant's arguments regarding the 102(b) rejection under Ito are moot in view of the amendments. Applicant's arguments filed 5 December have been fully considered but they are not persuasive. The applicant argues that De Francesco does not teach chemical vapor deposition or plasma chemical vapor deposition, and that De Francesco and Ito may not be combined because De Francesco does not teach chemical vapor deposition. It is first noted by the examiner that the limitation including plasma-enhanced chemical vapor deposition occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). However, in order to make a stronger rejection, the 102 rejection is withdrawn. Ito in view of De Francesco is maintained because one of ordinary skill would want to use a more uniform plasma generator in their PECVD device in order to make a more uniform film. New grounds of rejection appear below necessitated by amendment.

### Claim Objections

Claim 6 objected to because of the following informalities: "1" should be –claim 1--. Appropriate correction is required.

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## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the insulating material". There is insufficient antecedent basis for this limitation in the claim, as it depends from claim 1 and not claim 5.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (EP 1146569) in view of De Francesco.

As to claim 1, Ito et al. teaches a method for PECVD where a discharge electrode and a substrate are parallel to each other in vacuum chamber with a deposition gas for forming a film. High frequency electric power generated by a feeding circuit is fed to feeding points to the discharge electrode through external cables and internal cables corresponding with the external cables to generate plasma. The phases of the high frequency electric power at the feeding points is changed by changing characteristics of the external cables with the power being fed to the feeding points. See paragraphs 0062-0064 and Figures 8-9. Ito et al. includes modifying the external cables, but not the electrical characteristics based on the plasma conditions. De Francesco teaches modifying electrical characteristics of similar external coaxial cables based on plasma conditions in order to make more uniform plasma (columns 4-5 lines

38-20, for example). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ito et al. to include modifying electrical characteristics of the external coaxial cables based on plasma conditions as taught by De Francesco in order to make more uniform plasma.

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As to claim 3, the electrical characteristics in Ito et al. are changed by changing lengths of the external cables in paragraph 0065, for example. The electrical characteristics are changed by changing lengths of the external cables in De Francesco et al. columns 2-3 lines 50-17.

As to claim 4, the lengths are changed in Ito et al. by detaching connectors (paragraph 0065, for example). In De Francesco, the lengths are changed by changing connectors in columns 2-3 lines 50-17.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and De Francesco in view of Pote et al. (US 5239134).

Ito et al. and De Francesco include modifying the external cables, but not by adding an insulating material and changing electrical characteristics by changing the dielectric constant of the material. Pote et al. teaches making such a coaxial cable and modifying the dielectric constant so that the phase propagation of the cable, etc. is more easily controllable (abstract). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ito et al. and De Francesco to include a cable such as that taught by Pote et al. in order to make a cable in which the phase propagation of the cable, etc. is more easily controllable (abstract).

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As to claim 6, the insulating material is that claimed in Pote et al. columns 1 and 2 et seq. for example.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY STOUFFER whose telephone number is (571)272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly Stouffer Examiner Art Unit 1792

kms

/Timothy H Meeks/ Supervisory Patent Examiner, Art Unit 1792